Sooner Upward Bound Calculus: Quiz #3

**Problem 1:** Evaluate the following using the graph of the function $f$ below:

\[
\lim_{x \to 1} f(x) = \_, \quad f(0) = \_, \quad \lim_{x \to 0} f(x) = \_.
\]

![Graph of function f](image)

**Problem 2:** Evaluate the following limits, showing your work.

a. \( \lim_{x \to -3} \frac{x^2 + x - 6}{x^2 - 9} \)

b. \( \lim_{x \to 4} \frac{\sqrt{x + 5} - 3}{x - 4} \)

c. \( \lim_{x \to 7} \frac{5x}{\sqrt{x + 2}} \)